

**PRINTED WIRING BOARD, ITS MANUFACTURING METHOD
AND CIRCUIT DEVICE**

ABSTRACT

-- A printed wiring board manufacturing process comprises forming a conductive metal layer on at least one surface of an insulating film with a sputtered metal layer in between, selectively etching the conductive metal layer and the sputtered metal layer to produce a wiring pattern, treating the laminated film with a first treatment liquid capable of dissolving nickel of the sputtered metal layer, and treating with a second treatment liquid capable of dissolving chrome of the sputtered metal layer and also capable of eliminating the sputtered metal layer in the insulating film to remove a superficial surface of the insulating film exposed from the wiring pattern together with the residual sputtered metals in the superficial surface. A printed wiring board comprises an insulating film and a wiring pattern, wherein the insulating film in an area exposed from the wiring pattern has a thickness smaller by 1 to 100 nm than that of an area under the wiring pattern. The process eliminates the sputtered metals combined with the insulating film together with the superficial surface of the insulating film, and therefore the insulating film surface between wires does not contain any residual metals and a short circuit between wires is prevented. --